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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER COLILLA, DANIEL JAMES	
			ART UNIT 2854	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,853

Applicant(s)

SCARTON, GIANRICO

Examiner

Daniel J. Colilla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 March 2007.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 17 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 3/16/07; 5/17/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Inventor's Patent Application
6) ☐ Other: _____

DETAILED ACTION

It is noted that applicant uses a lot of idiomatic language including, "i.e." and "such as." While there is nothing inherently wrong with using such language, it will be given the broadest reasonable interpretation in the claims. In the above examples, such language is generally interpreted as not being required by the claim but merely providing an one example of how the claim could be carried out.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **"ink ribbon, placed between said second printing unit and said plan paper ribbon," as recited in claim 3,** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-10 are objected to because of the following informalities:

In claim 1, applicant appears to be doubly reciting the roll of paper. Applicant recites, “a roll of paper” and “a continuous paper ribbon.” While the claim introduces these as two separate items, the examiner believes that applicant is actually only reciting a single roll that is a continuous paper ribbon. This is how the claim will be interpreted to expedite examination.

In claim 2, applicant recites, “to feed a corresponding ribbon of thermal paper.” It would appear from the context that applicant is not intending to recite an additional thermal paper, but perhaps applicant is attempting to recite a particular portion of the thermal paper. Additionally, this phrase does not appear to grammatically flow with the preceding portion of the claim. Perhaps some language is missing.

In claim 10, line 2, there is an extraneous “.”

In claim 10, line 2, the phrase “is associated with” does not require the structure that is subsequently recited as part of the claimed subject matter. It is presumed that applicant is intending to positively recite this structure as part of the claimed subject matter, therefore, applicant should use a transitional phrase such as, --further comprising.--

In claim 11, line 12, it appears that “unit” at the beginning of the line should actually be --units--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, applicant recites, “said roll of paper consists of special thermal paper, *that is to say heat-sensitive* [emphasis added]. It is not clear how the language “that is to say” affects the claim. It is not clear if the thermal paper is require to be heat-sensitive or not. Thus the scope of the claim has been rendered vague and indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Hori *et al.* (US 6,543,946).

With respect to claim 1, Hori *et al.* discloses a printing device for receipts, each having a first area bearing constant data, i.e. unchanging from one receipt to the next, such as symbols

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and/or markings, suitable for identifying said receipts, and a second area bearing variable data, i.e. subject to change from one receipt to the next, such as numerical data corresponding to the operations to be documented on each of said receipts, said device including a roll of paper 170 suitable for feeding, through a print path, the roll being continuous paper ribbon, a first printing unit 120, ink jet, dot-matrix type (Hori *et al.*, col. 1, lines 27-35), a second printing unit 110 thermal, dot-matrix type, said first and said second printing unit being arranged along said print path as shown in Fig. 1 of Hori *et al.*, feeding means 130, 132 for feeding said paper ribbon 170 along said print path, whereby to permit printing of said paper ribbon by said first and said second printing unit, and cutting means 140 for cutting said continuous paper ribbon after the printing, so as to form the receipts, characterized in that said first ink jet printing unit 120 is provided for printing on said paper ribbon said constant data, and said second thermal printing unit 110 is provided for printing on said paper ribbon said variable data, for each of said receipts. *It is noted here that both thermal transfer printers and ink jet printers are capable of printing either constant data or variable data.*

With respect to claim 2, Hori *et al.* discloses that the roll of paper 170 consist of special thermal paper that is heat sensitive (Hori *et al.*, col. 3, lines 14-17) and is fed through said print path and said second printing unit 110 is suitable for carrying out printing by cooperating directly on contact and selectively heating dot-like areas of the thermal paper (Hori *et al.*, col. 3, lines 8-14).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hori *et al.* (US 6,543,946) in view of Tischer (US 2003/0156877).

Hori *et al.* discloses the claimed printing device except for the roll of paper consisting of plain paper and the ink ribbon. However, Tischer teaches that thermal printers such as the type that print on heat sensitive paper (direct thermal) and the type that prints with an ink ribbon (thermal transfer) can be used interchangeably (paragraph [0051]). It would have been obvious to use the plain paper with ink ribbon type thermal transfer printing unit for the advantage of being able to print on plain paper.

9. Claims 4-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hori *et al.* (US 6,543,946) in view of Koshimizu (JP 9-226184).

With respect to claim 4, Hori *et al.* discloses the claimed printing device except for the control unit controlling the second thermal printing unit to print variable data during a second printing step following the first printing step. Hori *et al.* discloses that the first printing 120 unit can be used for printing constant data such as coupon data (Hori *et al.*, col. 1, lines 12-15 and col. 5. lines 8-20) automatically and independently of the variable data (black data printed by second printing unit 110).

Koshimizu teaches a control unit CPU (Koshimizu, paragraph [0029]) suitable for managing the operation of said printing device, characterized in that the printing unit is suitable for printing said constant data (such as a logo, Koshimizu, paragraph [0021]) for each of said receipts, automatically and independently of said variable data, during a first preliminary printing step (Koshimizu, paragraph [0021], "printing a logo"), and in that the printing unit is provided for printing, in response to a print command, said variable data received from said control unit and relative to each of said receipts, during a second printing step following said first printing step:

Koshimizu, paragraph [0022], "After printing a logo in in [sic] the paper [roll] it becomes the following receipt, it judges whether the power supply is turned off at Step 207, when the power supply is not turned off, it returns to processing of Step 203 and accounting to the next customer is held."

so that the time needed to complete the printing of each of said receipts, following the activation of said print command, is significantly shortened, not comprising the time to print said constant data already printed in advance. See also paragraph [0012] of Koshimizu which states, "whenever it cuts continuous forms, it is made to print a logo a priori to a position of continuous forms in advance of printing of the following receipt."

It would have been obvious to combine the teaching of Koshimizu with the printing device disclosed by Hori *et al.* for the advantage or reducing printing time by printing fixed or constant data as soon as a previous transaction is completed.

With respect to claim 5, the printing of constant data is in response to a signal generated immediately after the cutting of a receipt as mentioned in paragraph [0012] of Koshimizu.

With respect to claim 6, applicant is reciting a method of intended use in this claim. The printing device disclosed by Hori *et al.* could be used so that the thermal printhead 110 is operated at a print speed that is significantly greater than that of the ink jet printhead.

With respect to claim 7, Hori *et al.* disclose that the printing unit 120 is used for printing color such as magenta (Hori *et al.*, col. 3, lines 42-45). Hori *et al.* also indicates that any ink printing mechanism may be used for printing unit 120.

With respect to claim 8, the second thermal printing unit 110, is of the in-line type (it inherently must be in order to print a meaningful line of text on the receipt) and comprises a printhead 112 arranged in a fixed position transversally with respect to the paper ribbon 170 as shown in Fig. 1 of Hori *et al.* Additionally, the printhead 112 has a width substantially corresponding to that of the single line to be printed on the paper ribbon 170 (again, this is inherent since the printhead 112 must print a single line and does not move against the paper).

With respect to claim 9, the ink jet printing unit 120 is arranged downstream of the thermal printing unit 110 along the print path according to the direction of feeding of the paper ribbon 170 as shown in Fig. 1 of Hori *et al.*

With respect to claim 11, Hori *et al.* discloses the claimed method of printing except for the printing of the variable data during a second step successive and temporally distinct from the first step. Hori *et al.* discloses a method of printing of receipts, each having a first area bearing constant data (i.e. coupons, Hori *et al.*, col. 1, lines 12-15), i.e. unchanging from one receipt to the next, such as symbols and/or markings, suitable for identifying said receipts, and a second area bearing variable data (col. 5, lines 15-16), i.e. subject to change from one receipt to the next,

such as numerical data corresponding to the operations to be documented on each receipt, said method comprising the following steps:

providing a printer comprising:

a roll of paper 170 suitable for feeding a ribbon of continuous thermal paper through a print path,

a first ink jet type printing unit 120 (Hori *et al.*, col. 1, lines 27-35)

a second thermal type printing unit 110, said first and said second printing unit being arranged along said print path (as shown in Fig. 1 of Hori *et al.*),

feeding means 130,132 for feeding said ribbon of thermal paper 170 along said print path, so as to allow the printing of said ribbon of thermal paper by said first and said second (-2--3-) printing units, and

cutting means 140 for cutting said ribbon of thermal paper 170 after the printing, so as to form said receipts.

Koshimizu teaches printing on a ribbon of thermal paper , via a printing unit, said constant data (such as a logo, Koshimizu, paragraph [0012]) for each of said receipts, automatically and independently of the relative variable data, during a first printing step.

Koshimizu further teaches printing on said paper, the variable data relative to each of said receipts, during a second step successive and temporally distinct from said first step. See paragraph [0012] of Koshimizu which states that the logo is printed in advance of the following receipt.

Koshimizu also teaches cutting (paragraph [0012]), with said cutting means, said paper, so as to detach and issue the receipt.

Whereby each receipt, following activation of said print command, is printed in a time faster than in the case where the constant data as well as the variable data had to be printed for the same receipt. Koshimizu teaches that the issuing speed of the receipt is made faster by his invention (Koshimizu, paragraph [0005]).

It would have been obvious to combine the teaching of Koshimizu with the printing device disclosed by Hori *et al.* for the advantage of issuing receipts faster at the end of a sale.

With respect to claim 12, the speed of printing is inversely related to the quality of printing. One of ordinary skill in the art would be aware of the need to balance these quality vs. speed requirements. Thus setting a faster speed for the second printing unit during the second printing step would have been obvious through ordinary routine experimentation.

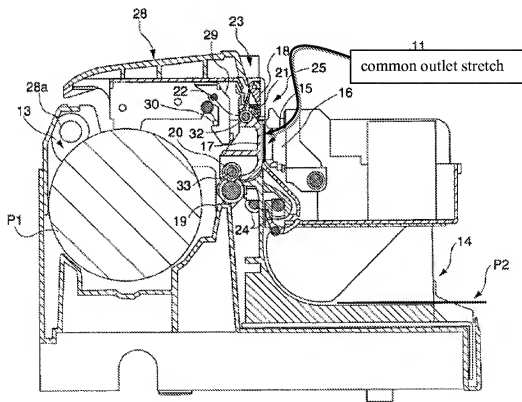
With respect to claim 13, Koshimizu discloses that the constant data (i.e. a logo) is stored in RAM as mentioned in paragraph [0021] of Koshimizu. Further taught by Koshimizu is a keyboard for inputting various kinds of data (paragraph [0016]). In order to process a sale, one would inherently have to use the keyboard for entering the sale information (see also paragraph [0015] of Koshimizu that teaches sale information is printed).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hori *et al.* (US 6,543,946) in view of Koshimizu (JP 9-226184), as applied to claim 9 above, and further in view of Hirabayashi *et al.* (US 6,789,969).

Hori *et al.* in view of Koshimizu discloses the claimed printing device except for the further print path for single documents. However, Hirabayashi *et al.* recites a further print path for single documents P2, such as cheques and bills, consisting of single separate sheets, wherein

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said further print path extends between an entrance zone 14, suitable for receiving said single documents P2, and an exit zone 25 for delivery to the outside of said single documents, after printing, wherein said further print path shares a common outlet stretch (as shown below in the Fig. taken from Fig. 5 of Hirabayashi *et al.*) with the print path (21, 21a, 21c) provided for conveying said continuous paper ribbon P1 coming from said roll of paper, and wherein a printing unit 16 is arranged along said common stretch. In the combination of Hori *et al.* and Hirabayashi *et al.* one of ordinary skill in the art would recognize that the ink jet printing unit 120 of Hori *et al.* would be placed where the printing unit 16 of Hirabayashi *et al.* is located.



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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Klein, Harrison and Kaufman *et al.* are cited to show other examples of a printer with a thermal printer and an ink jet printer.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel J. Colilla** whose telephone number is **571-272-2157**. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Judy Nguyen** can be reached at **571-272-2258**. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 5, 2009

/Daniel J. Colilla/
Primary Examiner
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